Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently Amended) An apparatus for computing a preferred set of prices for a subset of a plurality of products, comprising computer readable media, comprising:

computer readable code for storing initial prices for a plurality of products;

computer readable code for creating a demand model based on Bayesian modeling;

computer readable code for designating a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products, the subset being designated by solving an integer problem, and wherein the computer readable code for designating the subset of products includes computer readable code for allowing a number N to be designated and computer readable code for selecting no more than N products of the plurality of products to form the subset of products; and

computer readable code for using the created demand model to optimize prices for products in the subset of products, while maintaining the initial prices of products of the plurality of products that are not in the subset of products, wherein the optimization includes relaxation of constraints.

2. (Cancelled) The apparatus, as recited in claim 1, wherein the computer readable code for designating a subset, comprises:

computer readable code for allowing a number N to be designated; and

computer readable code for selecting no more than N products of the plurality of products to form the subset of products.

3. (Currently Amended) The apparatus, as recited in claim 1 [[claim 2]], wherein the computer readable code for selecting no more than N products selects products that provide the greatest optimization for any set of N products of the plurality of products.

4. (Original) The apparatus, as recited in claim 3, further comprising computer readable code for providing initial prices by optimizing prices for all of the plurality of products.

5. (Original) The apparatus, as recited in claim 4, further comprising computer readable code for providing new data subsequent to providing initial prices by optimizing prices.

6. (Original) The apparatus, as recited in claim 5, wherein the computer readable code for providing new data comprises computer readable code for providing new price data and computer readable code for providing new bound data.

7. (Original) The apparatus, as recited in claim 6, further comprising computer readable code for providing rule relaxation.

8. (Original) The apparatus, as recited in claim 7, wherein the computer readable code for providing rule relaxation comprises:

computer readable code for allowing the prioritization of a plurality of rules; and

computer readable code for relaxing at least one lower priority rule to allow a higher priority rule to become feasible.

9. (Original) The apparatus, as recited in claim 1, further comprising computer readable code for providing initial prices by optimizing prices for all of the plurality of products.

10. (Original) The apparatus, as recited in claim 1, further comprising computer readable code for providing new data subsequent to providing initial prices by optimizing prices.

11. (Original) The apparatus, as recited in claim 10, wherein the computer readable code for providing new data comprises computer readable code for providing new price data and computer readable code for providing new bound data.

12. (Original) The apparatus, as recited in claim 1, further comprising computer readable code for providing rule relaxation.

13. (Original) The apparatus, as recited in claim 12, wherein the computer readable code for providing rule relaxation, comprises:

computer readable code for allowing the prioritization of a plurality of rules; and

computer readable code for relaxing at least one lower priority rule to allow a higher priority rule to become feasible.

14. (Currently Amended) A computer-implemented method for computing a preferred set of prices for a subset of products of a plurality of products, comprising:

storing initial prices for a plurality of products;

creating a demand model based on Bayesian modeling;

designating a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products, the subset being designated by solving an integer problem, and wherein the designation of the subset of products includes allowing a number N to be designated and selecting no more than N products of the plurality of products to form the subset of products; and

optimizing prices for products in the subset of products using the demand model, while maintaining the initial prices of products of the plurality of products that are not in the subset of products using the demand model, wherein the optimization includes a relaxation of constraints.

15. (Cancelled) The method, as recited in claim 14, wherein the designating a subset comprises:

allowing a number N to be designated; and

selecting no more than N products of the plurality of products to form the subset of products.

16. (Currently Amended) The method, as recited in claim 14[[claim 15]], wherein the selecting no more than N products selects products that provide the greatest optimization for any set of N products of the plurality of products.

17. (Original) The method, as recited in claim 14, further comprising providing initial prices by optimizing prices for all of the plurality of products.

18. (Original) The method, as recited in claim 17, further comprising providing new data subsequent to providing initial prices by optimizing prices.

19. (Original) The method, as recited in claim 18, wherein the new data comprises new price data and bound data.

20. (Original) The method, as recited in claim 14, further comprising providing rule relaxation.

21. (Currently Amended) A computer-implemented method for setting prices for a subset of products of a plurality of products, comprising:

receiving optimized prices for a product category;

pricing every item in the product category according to the received optimized prices;

providing new data;

receiving new prices for the subset of products of the product category, wherein the subset is smaller than the product category, wherein the received new prices are generated by storing initial prices for a plurality of products, designating a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products, the subset being designated by solving an integer problem, and wherein the designation of the subset of products includes allowing a number N to be designated and selecting no more than N products of the plurality of products to form the subset of products;[[, and]]

optimizing prices for products in the subset of products, while freezing the initial prices of products of the plurality of products in the product category that are not in the subset of products, wherein the optimization includes relaxation of constraints; and

setting prices for the subset of products according to the received new prices.

22. (Currently Amended) A computer-implemented data signal embodied in a carrier wave and representing sequences of instructions which when executed by a processor, causes the processor to compute a preferred set of prices for a subset of a plurality of products, by performing the steps comprising:

storing initial prices for a plurality of products;

designating a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products, the subset being designated by solving an integer problem, and wherein the designation of the subset of products includes allowing a number N to be designated and selecting no more than N products of the plurality of products to form the subset of products; and

optimizing prices for products in the subset of products, while maintaining the initial prices of products of the plurality of products that are not in the subset of products, wherein the optimization includes relaxation of constraints.

23. (Currently Amended) A computer-implemented price database generated by the method comprising:

storing initial prices for a plurality of products;

designating a subset of products of the plurality of products, wherein the number of products in the subset of products is less than the number of products in the plurality of products, the subset being designated by solving an integer problem, and wherein the designation of the subset of products includes allowing a number N to be designated and selecting no more than N products of the plurality of products to form the subset of products; and

optimizing prices for products in the subset of products, while maintaining the initial prices of products of the plurality of products that are not in the subset of products, wherein the optimization includes relaxation of constraints.

24. (Currently Amended) A computer-implemented method for obtaining optimized price data on a client system, comprising the steps of:

sending sales data to a server system for a plurality of products;

selecting optimization preferences;

transmitting said optimization preferences to said server system;

receiving from said server system optimization prices for all of the plurality of products, wherein the optimization includes relaxation of constraints;

sending additional sales data to the server system;

selecting a subset constraint;

sending the subset constraint to the server system; and

receiving from the server system a new set of optimization prices for a subset of the plurality of products which is less than the plurality of products, the subset being designated by solving an integer problem, wherein the optimization includes relaxation of constraints, and wherein the designation of the subset of products includes allowing a number N to be designated and selecting no more than N products of the plurality of products to form the subset of products.

25. (Previously Added) The method, as recited in claim 14, wherein the integer problem is based on an objective function which includes a sum of a plurality of marginal product price values.